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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,534	03/30/2004	Russell J. Palum	87129PCW	3301

7590 01/30/2006
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EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/812,534

Applicant(s)

PALUM ET AL.

Examiner

Thanh X. Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-8 and 16-22 in the reply filed on December 22, 2005 is acknowledged.

Claims 1-8 and 16-22 are currently pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, it conflicts with independent claim 1. It is unclear how a material absorbs wavelengths at a specific band, and also absorbs at all wavelengths. That is, claim 5 impermissibly broadens the scope of the invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 6, 16 and 20, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Owaku et al. (JP 02-246586).

Regarding claims 1, 5, 6, 16 and 20, Owaku et al. disclose (see Figs. and

abstract) an image sensor, comprising: a plurality of pixels (2) for absorbing incident light; and an absorptive material (17) spanning the pixels, and on a color filter, that absorbs wavelengths at a transition between a desired bandpass and rejection band. That is, the transition between the desired bandpass and rejection band corresponds to the absorbed wavelength since it is referred to as "desired." Furthermore, as understood, since the sensor of Owaku et al. has the same structure as claimed, it is a camera. Owaku et al. also disclose, as understood, the material absorbs substantially equally at all visible wavelengths.

6. Claims 1, 3, 4, 6, 16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji (U.S. Patent Application Publication 2001/0004288).

Regarding claims 1, 3, 4, 6, 16 and 18-20, Tsuji discloses (see Figs. 2 and 7) an image sensor, comprising: a plurality of pixels (CCD line sensor 116) for absorbing incident light; and an absorptive material (at turret 36), in or on a color filter, spanning the pixels that absorbs wavelengths at a transition between a desired bandpass and rejection band. That is, the transition between the desired bandpass and rejection band corresponds to the absorbed wavelength since it is referred to as "desired."

Furthermore, as understood, since the sensor of Tsuji has the same structure as claimed, it is a camera. Tsuji also discloses (see paragraph [0067]) the transition is substantially between 600-700 nanometers (cyan filters absorb red light which is between 600-700 nm). Tsuji further discloses (see Fig. 7) a plurality of transitions (different filters cyan, magenta, yellow) at which there is a corresponding plurality of desired bandpass and rejection bands.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7, 8, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owaku et al. in view of Finley et al. (U.S. Patent 4,401,887).

Regarding claims 7, 8, 21 and 22, Owaku et al. disclose the claimed invention as set forth above. Owaku et al. further disclose (see Fig. 3) the image sensor under a cover glass (GLS). Owaku et al. do not specifically disclose the absorptive material on the cover glass or between the cover glass and the sensor. Finley et al. teach (see Figs.) an antireflective layer (45) on the cover glass or between the cover glass and the sensor to also reduce flare. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the material on a cover glass as claimed in the apparatus of Owaku et al. in view of Finley et al. to improve the ease in manufacturing or to make the sensor more modular.

9. Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Saito et al. (U.S. Patent 5,685,919).

Regarding claims 2 and 17, Tsuji discloses the claimed invention as set forth above. Tsuji also discloses a cyan colorant. Tsuji does not specifically disclose the colorant is a copper phthalocyanine. Saito et al. teach (see col. 4, line 30) copper phthalocyanine as the absorptive material for a sensor. Furthermore, choosing the type

of material is design choice and requires only routine skill in the art. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use copper phthalocyanine cyan colorant in the apparatus of Owaku et al. in view of Saito et al. for a desired response.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh X Luu
Primary Examiner
Art Unit 2878